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EXAMINER	
BUI PHO, PASCAL M	
ART UNIT	**PAPER NUMBER**
2878	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/509,166	APPLEYARD, ROBERT	
	Examiner	Art Unit	
	Pascal M. Bui-Pho	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15,17-19,26-28,32,34-40,43-51 and 53-57* is/are rejected.

7)☒ Claim(s) *16,20-25,29-31,33,41,42 and 52* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 February 2007 and 27 September 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office action is responsive to communications filed on 05 February 2007. Presently, claims 1-57 remain pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings were received on 05 February 2007. These drawings are acceptable.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 6, 9, 13-15, 26-28, 32, 43-45, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiessler (US 6,752,253).

With regards to claim 1, Fiessler discloses in Fig. 1 a safety system for an industrial press having a moveable section (10), the safety system including: a laser device (20-22) for emitting a plurality of parallel continuous planar beams (23, 23a) having a generally constant lateral width; a light receiver (20-22) for receiving the planar beams and for detecting when an object intersects at least one of the planar beams; and a controller (26) for stopping or preventing motion of the moveable section when the light receiver detects that at least one of the planar beams has intersected an object (25), said controller further adapted to decelerate the moveable

section from a first speed (when moveable section is moving) to a second speed (when moveable section is stopped or decelerating) within a deceleration zone. Although Fiessler discloses a set safety distance wherein the moveable section decelerates (Column 4, lines 29-62), Fiessler lacks a clear specification of said controller decelerating the moveable section within a deceleration zone defined between a first point at which a first planar beam passes a speed control point and a second point at which a second planar beam passes the speed control point. However, selecting an optimal safety distance for better system performance would have been obvious to one of ordinary skill in the art. Consequently, it would be obvious to select a safety distance wherein said section decelerates within a desired deceleration zone and modify Fiessler accordingly in order to provide a system of lesser sensitivity.

With regards to claim 32, Fiessler discloses in Fig. 1 a safety system for an industrial press having a moveable section (10), the safety system including: a laser device (20-22) for emitting a continuous planar beam (23, 23a) of rectilinear cross-section having generally constant lateral depth; said rectilinear beam having a proximate and distal face relative to a leading edge (12) of the moveable section; a light receiver (20-22) for receiving the planar beams and for detecting when an object intersects at least one of the planar beams; and a controller (26) for stopping or preventing motion of the moveable section when the light receiver detects that at least one of the planar beams has intersected an object (25), said controller further adapted to decelerate the moveable section from a first speed (when moveable section is moving) to a second speed (when moveable section is stopped or decelerating) within a deceleration zone. Although Fiessler discloses a set safety distance wherein the moveable section decelerates (Column 4, lines 29-62), Fiessler lacks a clear specification of said controller decelerating the

moveable section within a deceleration zone defined between a first point at which the proximate face passes a speed control point and a second point at which the distal face passes the speed control point. However, selecting an optimal safety distance for better system performance would have been obvious to one of ordinary skill in the art. Consequently, it would be obvious to select a safety distance wherein said section decelerates within a desired deceleration zone and modify Fiessler accordingly in order to provide a system of lesser sensitivity.

With regards to claim 2, Fiessler discloses a safety system wherein the first and second planar beams (23, 23a) are adjacent (generally depicted in Fig. 1).

With regards to claim 6, Fiessler discloses a safety system wherein further including a plurality of laser devices (20-22) used to provide the continuous planar laser beams.

With regards to claim 9, Fiessler discloses a safety system wherein the light receiver (20-22) includes an array of light receiving elements, the elements being aligned along a common axis and located at an end of a receiver body of the light receiver (generally depicted in Fig. 1).

With regards to claim 13, Fiessler discloses a safety system wherein the industrial press further includes a stationary section (9) such that the laser beams (23, 23a) are located between the moveable (10) and stationary (9) sections of the industrial press (generally depicted in Fig. 1).

With regards to claim 14, Fiessler discloses a safety system wherein the moveable section (10) includes a leading edge (12) and each laser beam (23, 23a) is spaced at a different distance to the leading edge.

With regards to claim 15, Fiessler discloses a safety system wherein the two planar laser beams (23, 23a) are emitted by the laser emitting means (20-22) with a first planar beam (23a) being spaced further from the leading edge (12) than a second planar laser beam (23), said first and second planar beams defining a single deceleration zone.

With regards to claims 26-28 and 43-45, Fiessler discloses a safety system comprising a safety distance of 3 to 10 mm (Column 4, lines 13-14) and an inherent unspecified rectilinear beam depth (one of ordinary skill in the art would recognize that all beams have a depth/diameter/radius), but lacks a clear specification of a speed control point being located 2mm above a surface of material, the depth of the planar/rectilinear beam being 10mm, or the proximate face and the moveable section being spaced by 4mm. At the time of the invention, selecting an optimal position, depth, or spacing for said control point, rectilinear beam, or section, respectively, would have been obvious to one of ordinary skill in the art. Consequently, it would have been obvious to modify Fiessler accordingly by adjusting the moveable section and/or the beam in order to provide a more desirable output.

With regards to claim 51, Fiessler discloses a safety system wherein the light receiver includes a two-dimensional array of light-receiving elements (20-22), the elements being placed in a rectilinear distribution and located at an end of a receiver body of the light receiver (generally depicted in Figs. 1 and 2).

5. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiessler (US 6,752,253) in view of De Coi (US 6,124,586).

With regards to claims 11 and 12, Fiessler discloses in Fig. 1 a safety system comprising planar beams (23, 23a), but lacks a clear specification of said beams being

multiplexed such that each laser beam is sequentially turned off and on creating pulses pulsating at a pre-determined pulse rate so that a light receiver only detects one of said laser beams at one time. In an analogous measuring art, De Coi discloses in Fig. 2 a system wherein laser beams (33, 33') are multiplexed such that each laser beam are pulsating at a pre-determined pulse rate (2 Hz) so that the light receiver (35, 35') only detects one laser beam at one time. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Fiessler by pulsating the planar beams at a pre-determined pulse rate, as taught by De Coi, in order to provide a longer lasting emitter and receiver (Abstract).

6. Claims 17-19 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiessler (US 6,752,253) in view of Harrison et al. (US 3,750,436).

With regards to claims 17 and 34, Fiessler discloses in Fig. 1 a safety system wherein a speed measurement is performed by a controller (31) as a moveable section (10) travels a predetermined distance, but lacks a clear specification of said controller measuring a number of pulses at a pulse rate as a moveable section (10) travels. In an analogous measuring art, Harrison et al. disclose in Figs. 1 and 2 a system for measuring the speed of a moveable section (18) by measuring the number of pulses (generated by generator 24) and counted by counter (25) as the moveable section travels. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Fiessler by incorporating a pulse counter, as taught by Harrison et al., in order to provide a more accurate positioning of the moveable section.

With regards to claims 18 and 35, Fiessler discloses a safety system wherein the predetermined distance is bisected by the speed control point (generally depicted in Fig. 1).

With regards to claims 19 and 36, Fiessler discloses a safety system wherein the predetermined bisects the speed control point, but lacks a clear specification of said distance being 2 mm and commencing 1 mm above the speed control point and finishing 1 mm below the speed control point. Selecting a specific safety distance, however, would have been obvious to one of ordinary skill in the art. Consequently, it would have been obvious to one of ordinary skill in the art to increase and/or decrease the safety distance and modify Fiessler accordingly in order to add and/or subtract system safety, if so desired.

7. Claims 37-40, 46-48, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiessler (US 6,752,253), hereinafter referred to as '253, in view of Fiessler (US 6,677,574), hereinafter referred to as '574.

With regards to claims 37 and 38, '253 discloses in Fig. 1 a safety system for an industrial press comprising a controller (26) for stopping or preventing motion of a moveable section (10) from a first speed (when moveable section is moving) to a second speed (when moveable section is stopped or decelerating), but lacks a clear specification of said first speed being a maximum operating speed and said second speed being a final crawl speed. In an analogous industrial press art, '574 discloses in Figs. 1-3 a safety system for an industrial press comprising, among other features, a controller (31) for stopping or preventing motion of a moveable section (10) from a first speed (when moveable section is moving) to a second speed (when moveable section is stopped or decelerating), wherein said first speed is a maximum operating speed (Column 4, lines 35-37) and said second speed being a final crawl speed (Column 4, lines 37-39). At the time of the invention, it would have been obvious to one of

ordinary skill in the art to modify '253 by utilizing a maximum operating speed and a final crawl speed, as taught by '574, in order to provide faster and more efficient manufacturing.

With regards to claims 39, 40, and 46, '253 and '574 disclose a safety system wherein the controller (26 of '253, 31 of '574) stops or prevents motion of a moveable section (10) from a first speed (when moveable section is moving) to a second speed (when moveable section is stopped or decelerating), but lack a clear speed rate for said first and second speed. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify '253 and '574 by selecting an optimal speed rate in order to provide faster and more efficient manufacturing.

With regards to claim 47, '253 discloses a safety system wherein the controller further decelerates the moveable section (10) from the second point to a third point located at which the leading edge (12) of the moveable section passes the speed control point (generally depicted in Fig. 2).

With regards to claim 48, although '253 and '574 lack a clear disclosure of decelerating a moveable section (10 of '253) from 20 mm per second to 10 mm per second between the second point and the third point, selecting a desired speed for said moveable section would have been obvious to one of ordinary skill in the art. Consequently, it would have been obvious to modify '253 and '574 accordingly in order to provide greater safety and system control.

With regards to claim 57, '253 discloses in Fig. 1 a method of operating a safety system for an industrial press having a moveable section (10) and a stationary section (9), the safety system providing a plurality of continuous planar laser beams (23, 23a) having a generally constant lateral width, each laser beam being spaced at varying distances from the moveable

section, the method including moving the moveable section towards the station section at a relatively high speed (when moving); starting deceleration of the moveable section when one said laser beam reaches a speed control point (when light beam is interrupted) located immediately adjacent the stationary section. '253 however lacks a clear specification of moving the moveable section at a final crawl speed when a second laser beam reaches the speed control point, the moveable section continuing to move at said final crawl speed towards said stationary section. In an analogous safety art, '574 discloses a method of operating a safety system for an industrial press comprising the step of moving moveable section (10) at a final crawl speed when a second laser beam reaches the speed control point, the moveable section continuing to move at said final crawl speed towards a stationary section (11) (Column 4, lines 35-67). At the time of the invention, it would have been obvious to modify '253 and provide a final craw speed, as taught by '574, in order to provide faster and more efficient manufacturing.

8. Claims 3-5, 8, 10, 49, 50, and 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiessler (US 6,752,253) in view of Petrohilos et al. (US 4,007,992).

With regards to claims 3-5, 10, 49, and 50, Fiessler discloses in Fig. 1 a safety system comprising a plurality of laser emitters (20-22) for respectively emitting a continuous planar/rectilinear laser beam, but remains silent with regards to a lens assembly comprising a cylindrical prism for respectively converting said laser beam, a converging lens for refocusing the laser beam, and a cylindrical lens to focus the beam onto a light receiver array. In an analogous optics art, Petrohilos et al. disclose in Figs. 3 and 4 a system comprising a light source (28), a cylindrical prism (34, 54) for converting said light source, a converging lens (40, 60) for refocusing the laser beam, and a cylindrical lens (68) to focus the beam onto a light receiver (70).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to select a known available optical configuration, as taught by Petrohilos et al., in order to provide greater control of light modulation.

With regards to claim 7, Fiessler discloses a safety system wherein peripheral edges of the plane defined by the planar laser beam (23, 23a) extend laterally beyond opposing sides of the moveable section (10).

With regards to claim 8, herein considered dependent upon any one of claims 1-7, Fiessler discloses a light receiving body (20-22), but remains silent with regards to a single light receiver being used to receive the planar beams. In an analogous detection art, Petrohilos disclose in Fig. 4 a system wherein a single light receiver (70) is used to receive a plurality of planar beams utilizing a condensing cylindrical lens (68). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Fiessler by utilizing a single light receiver, as taught by Petrohilos et al, in order to reduce the number of light receivers and consequently reduce manufacturing costs.

With regards to claim 53, Fiessler discloses in Figs. 1 and 2 a method for setting a safety distance between a single planar laser beam (23, 23a) and a leading edge of a moveable section (10) of an industrial press, the method including the steps of: converging the planar beam along an axis parallel to the movement of the moveable section until the leading edge interrupts the planar beam (generally depicted in Fig. 1) and wherein the planar beam is increased/decreased along the axis by a pre-determined distance set as the safety distance (Column 4, line 39 – Column 5, line 4), but lacks a diverging step for diverging the planar beam away. In an analogous detection art, Petrohilos et al. disclose in Fig. 4 a step for diverging a

planar beam (50a) away utilizing a condensing cylindrical lens (68). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Fiessler by selecting known available optics in order to control the modulation of the planar beam and in turn gain greater control of the desired safety distance.

With regards to claim 54, Fiessler discloses a method performed under automatic control (Column 4, lines 48-52).

With regards to claim 55, although Fiessler and Petrohilos et al. disclose an automatic control (Column 4, lines 48-52), a clear calibration step for said industrial press is lacking. At the time of the invention, however, it would have been obvious to one of ordinary skill in the art to modify Fiessler and Petrohilos et al. accordingly in order to provide more reliable sensing results.

With regards to claim 56, Fiessler discloses a method wherein the planar laser beam (23, 23a), the associated emitters and receivers (20-22), and the controller (26) form part of a safety system mounted to the industrial press (generally depicted in Fig. 1).

Allowable Subject Matter

9. Claims 16, 20-25, 29-31, 33, 41, 42, and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The reasons for the indication of allowable subject matter presently remain similar to those indicated in Office action mailed 10 April 2006.

Response to Arguments

10. Applicant's arguments filed 05 February 2007 have been fully considered but they are not persuasive.

With regards to claim 1, Applicant sets forth the following arguments:

A) The 253 patent does not teach or suggest the use of "continuous planar beams" of the laser. The broad planar beams of the present (that is, claimed) invention avoid gaps or spaces between individual beams, such as the gaps between the individual beams 20, 21, and 22 shown in Figure 2 of the 253 patent.

Response: Examiner respectfully disagrees. One of ordinary skill in the art would recognize that beams (23, 23a) taught in the Fiessler reference (US 6,752,253) represent individual continuous planar beams since each pertain to an inherent geometric plane related thereto. As presently claimed, said planar beams does not limit the inclusion of gaps and/or spaces between the individual beams. Hence, as reasonably understood and interpreted, the beams (23, 23a) do in fact anticipate the planar beams of the present application. The rejection(s) corresponding thereto is/are hence deemed proper.

B) The 253 patent does not teach or suggest (as noted by the Examiner) the deceleration of the moveable section within a deceleration zone defined between a first point at which a first planar beam passed a speed control point and second point at which a second planar beam passes the same speed control point.

Response: Examiner respectfully disagrees. One of ordinary skill in the art would recognize that no moveable section stops instantaneously, that is, a deceleration zone corresponding a time said section receives a signal and/or instruction to stop/decelerate and a

time when said section stops/decelerates represents said deceleration zone, as taught in the Fiessler reference. It is herein considered that the speed control point is comparable to the deceleration zone defined between the first planar beam and the second planar beam. Without further definition of the speed control point and its function, as reasonably interpreted, the deceleration zone, comprising the first and second planar beams, represents a speed control point. The rejection(s) corresponding thereto is/are hence deemed proper.

C) There is no teaching or suggesting in the 253 patent that makes the invention, as defined in claim 1, obvious to a person skilled in the art based on the automatic calibration system described in the 253 patent.

Response: The Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the suggestion was found in the knowledgeable generally available to the Examiner, as one of ordinary skill in the art.

With regards to claim 32, Applicant sets forth the following arguments:

D) The 253 patent does not teach or suggest any of the elements of claim 32 mentioned above, namely: a continuous beam of rectilinear cross-section having a proximate and distal face relative to a leading edge of the moveable section; where the moveable section of the industrial press decelerates "from a first speed to a second speed within a deceleration zone; and where the

deceleration zone is defined between a first point at which the proximate face passes a speed control point and a second point at which the distal face passes the same speed control point.

Response: Examiner respectfully disagrees and directs Applicant to the above response addressing Argument A). Furthermore, Examiner asserts that the beams (23, 23a) taught in the Fiessler do anticipate the continuous beam of rectilinear cross-section of the present application, that is, beams (23, 23a) do form a straight line cross-section as claimed and as would be recognized to one of ordinary skill in the art. One of ordinary skill in the art would further recognize that all beams possess a proximate (top) and distal (bottom) face and in the Fiessler reference, relative to a leading edge of the moveable section (10), where the moveable section decelerates from a first speed to a second speed within a deceleration zone defined from a position where said section is instructed to stop/decelerate and a position where said section stops/decelerates. Without further definition of the speed control point and its function, as reasonably interpreted, the deceleration zone, comprising the first and second planar beams, represents a speed control point. The rejection(s) corresponding thereto is/are hence deemed proper.

E) Applicant respectfully submits that there is no teaching or suggestion in the 253 patent to a person skilled in the art to adapt the system of the 253 patent to use a broad block rectilinear safety beam and a deceleration zone as defined in claim 32.

Response: Examiner respectfully directs Applicant to the above response addressing Argument C).

With regards to claim 53, Applicant sets forth the following arguments:

F) The combination of the 253 and 992 patents does not teach or suggest the claim elements mentioned above, namely, converging the planar beam along an axis parallel to the movement of the moveable section until the leading edge interrupts the planar beam, and subsequently diverging the planar beam away from the leading edge along the axis by a predetermined distance, the predetermined distance being set as the safety distance, and thus, fails to render claim 53 obvious.

Response: Examiner respectfully disagrees and first directs Applicant to the '253 patent wherein a predetermined safety distance is being set, either manually or automatically. Examiner acknowledges a lack of disclosure of a converging and diverging step of the planar beam and thus relies upon the '992 reference to teach such steps. Applicant is reminded that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Hence, Examiner asserts that the claimed limitation found in claim 53 would have been obvious by modifying '253 in view of '992, as explained above.

G) The teachings of the 253 patent and the 992 patent are too disparate for a person skilled in the art to be motivated to combine the patents and arrive at the invention defined in claim 53.

Response: Examiner respectfully disagrees. It has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed.

Cir. 1992). In this case, the combination of patents '253 and '992 is deemed proper due to their belonging in the analogous art of optics. The divergence and convergence of a light beam via optical means has been known and available in the optics art. Thus, the Examiner asserts that the combination of the '253 and '992 patents would have been obvious for the above-mentioned motivation.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone/Fax Information

12. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Pascal M. Bui-Pho whose telephone number is (571) 272-2714. The Examiner can normally be reached on Monday through Friday: 8:30 a.m. - 5:00 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Georgia Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Pascal M. Bui-Pho
Examiner, Art Unit 2878
19 April 2007

THANH X. LUU
PRIMARY EXAMINER